COMMANDER
NAVY REGION MID-ATLANTIC
(CNRMA)

CLEAN AIR ACT COMPLIANCE GUIDE

JANUARY 2006

This guide provides air compliance procedures for equipment and process owners and operators. Adherence to this guide helps ensure air emission units are operated in a manner that safeguards the environment and complies with State, Federal, and Navy air requirements. If you have any questions pertaining to the information in this guide please contact:

Area of Responsibility	Air Manager	Phone (757)
Naval Station (NAVSTA) Norfolk Lafayette River Annex St. Juliens Creek Annex Southgate & Scotts Center Annexes Aircraft Painting at Oceana	Leal Boyd leal.boyd@navy.mil	445-6636
NAS Oceana & Dam Neck Annex NALF Fentress NSA Northwest Dare County Range	Caren Hendrickson caren.hendrickson@navy.mil	445-6637
NWS Yorktown & Cheatham Annex NAVSTA PWC Power Plants Craney Island & Yorktown Fuel Depots NAB Little Creek	Bryan Peed bryan.peed@navy.mil	445-6628
Report Submissions & Forms Guard Mail CNRMA N456 **FAX 444-3000**	Denise Sturdifen denise.sturdifen@navy.mil	445-8833

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SUMMARY OF CHANGES

Page	Section	Changes made since previous version
1	Regulatory Background	Modified to be more user friendly
5	General Coating, Solvent, and Stripper Use	Added section on closed container requirements and how to comply while air drying prior to disposal for waste minimization
7 & A-5	Coating– Ship Painting (NAVSTA)	Added requirement to log batch/lot number for each paint used
11 & A-2	Ozone Depleting Substances– Refrigerants	Added requirement to log normal charge of unit when servicing A/C&R equipment
12 & A-8	Processes– blasting, firing ranges, paint booths	Added requirements: inspect and log operating filter condition on A-8 prior to each operation; log all filter change outs on A-8
13, A-7, A-11	Wood Shops and Wood Product Manufacturing	Expanded definition of Wood Furniture to include other wood products; Added sign to be posted at all wood shops.
A-3	General Coating and Thinner Usage Log	Format revised; added note related to coating of wood products

ABBREVIATIONS

	Description
A/C&R	Air Condition and Refrigeration
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EPA	Environmental Protection Agency
HAP	Hazardous Air Pollutant
NESHAP	National Emission Standard for HAP
NOx	Nitrogen Oxide
ODS	Ozone Depleting Substance
PM	Particulate Matter
SO2	Sulfur Dioxide
VOC	Volatile Organic Compound

	Measurements
LF	Linear Feet
Ft2	Square Feet
Ft3	Cubic Feet
G/l	Grams/Liter
lb/gal	Pounds/Gallon

	Conversions
1 gallon	= 128 ounces
1 gallon	= 8 pints
1 gallon	= 4 quarts
1 quart	= 2 pints
1 pint	= 16 ounces

AFFECTED FACILITIES

This guide covers NAB Little Creek, NAVSTA Norfolk, NAS Oceana, NWS Yorktown, and all associated annexes and fuel depots. The guide summarizes all Environmental Protection Agency (EPA), State, and Navy specific air regulations covering our operations. Non-compliance with these regulations puts the command structure at risk for monetary fines, criminal negligence, and public embarrassment.

AIR EMISSIONS OVERVIEW & REGULATORY BACKGROUND

The EPA regulations are found in the Code of Federal Regulations (CFR). Virginia Air Regulations incorporate EPA regulations and are at times more strict. The types of air emissions covered by these regulations include Ozone Depleting Substances (ODS), Smog, Criteria Pollutants, and Hazardous Air Pollutants (HAP).

The ozone layer protects us from the sun's rays and is harmed by ODS chemicals commonly found in A/C&R refrigerant/freon and fire fighting halon. 40 CFR 82 governs ODS and is intended to protect the ozone layer. Additionally, Navy Instruction 5090.1B implements DoD and Navy policy governing ODS solvents by restricting procurement and use to mission critical cleaning applications (oxygen systems & gyroscopes).

Smog is ground level ozone formed by Volatile Organic Compounds (VOC). VOC are commonly found in paint, paint thinner, cleaning solvents, and fuel (especially gasoline). Smog is dangerous for those with weakened immune systems and asthma.

The Criteria Pollutants are VOC, Sulfur Dioxide (SO_2), Particulate Matter (PM), Nitrogen Oxide (NOx), and Carbon Monoxide (CO). Woodworking and abrasive blasting are common sources of PM (dust). Fuel burning equipment such as boilers and generators are the greatest contributors of NOx, CO, and SO_2.

EPA's Title V program combines all existing State and Federal air regulations and adds monitoring requirements to ensure a higher degree of compliance. A facility's potential to emit criteria pollutants determines whether they fall under Title V. Title V sources in CNRMA Hampton Roads are NAS Oceana, Dam Neck, NAVSTA Norfolk, and NAB Little Creek. Norfolk Naval Shipyard and Portsmouth Naval Medical Center are also Title V sources.

40 CFR 63 contains the National Emissions Standards for Hazardous Air Pollutants (NESHAP), which target specific industries to control emissions of VOC and HAP. NAVSTA Norfolk and NAS Oceana are the major HAP sources within CNRMA Hampton Roads and must comply with NESHAP (Norfolk Naval Shipyard is also a major HAP source). The regulations cover the following operations: off-site waste (subpart DD) and containers (subpart PP); aircraft and component coating and cleaning (subpart GG); ship and component coating (subpart II); and wood furniture construction (subpart JJ). Some NESHAP rules apply to all facilities regardless of HAP status. They include asbestos removal and handling (40 CFR 61 subpart M) and halogenated solvents (40 CFR 63 subpart T).

GENERAL COMPLIANCE

New or Modified Equipment and Processes

New or modified emission units or processes may require permitting prior to equipment installation. Any plan to install or modify air emission equipment or processes must be reported to your air manager at least 6 months prior to the planned installation or modification so that any necessary air permits can be secured.

Operation, Maintenance, and Operator Training

Permitted equipment must be operated and maintained properly in order to minimize air emissions caused by malfunction or breakdown. Written standard operating procedures (SOPs) and maintenance records are required to demonstrate proper operation. SOPs must at minimum be based on manufacturer recommendations. Operators must be trained on written procedures with training documented (employee name, training location and name, and date completed).

Recordkeeping and Reporting

All recordkeeping in this guide is required by Federal and/or State regulation and must be maintained at the operation for at least five years. Records must be available for unannounced inspection by CNRMA Environmental, State, and EPA personnel. If records are kept in a computer program such as Maximo, personnel on-site must either be familiar with the program and able to demonstrate compliance during unannounced inspections or have access to a sample printed record or ticket.

All reports are due by the 5th of each month for the previous month's work. If recordkeeping is required, documentation of zero usage is also required. Any form presented in this guideline is available electronically upon request. Alternate forms may be submitted provided they contain the information shown on the attached forms.

Visible Emissions

Process equipment such as blast booths, woodworking shops, and paint booths are not expected to produce emissions that are visible to the eye. If your process unit vents to the exterior of a building and produces visible emissions that do not dissipate after startup procedures are complete, immediately secure the operation and notify your air manager. Do not operate equipment until repairs are made.

Fuel burning equipment such as boilers and generators have visible emission limits that are classified as percentages of opacity (amount of background visible through the smoke plume). Determining opacity is a skill obtained through EPA Method 9 training. Only personnel who have current Method 9 certifications can legally determine opacity. Any owner or operator of permitted combustion equipment in violation of their permitted opacity limit must determine the cause, notify their air manager, and secure operations until repairs are made.

ASBESTOS CONTAINING MATERIAL (ACM) REMOVAL AND HANDLING

Also refer to OSHA and Virginia solid waste disposal regulations.

- Non-friable: when dry cannot be crumbled, pulverized, reduced to powder by hand pressure.
  - Category 1 non-friable: >1% asbestos packing, gaskets, resilient floor covering, asphalt roofing.
  - Category 2 non-friable: any other non-friable >1% asbestos.
- Regulated ACM (RACM): either friable or category 1 or 2 non-friable that has become friable or will be sanded, cut, abraded.

Inspect facilities for ACM prior to demolition or renovation. If RACM in facility to be demolished equals at least 260 LF, 160 ft^2, or 35 ft^3 (or facility renovation during any year will disturb these amounts) notify EPA at least 10 days prior to work.

Only licensed and trained personnel may perform renovation and removal involving ACM. Do not strip, remove, handle, or disturb ACM unless at least one on-site representative is trained in 40 CFR 61 subpart M every two years and training documentation is posted at work site.

Follow all air cleaning requirements as outlined in the regulations.

Remove all RACM prior to facility demolition or renovation unless: category I non-friable; encased in concrete; not accessible for testing; not discovered until after work started; not safely removable; non-friable with low probability of becoming friable; structurally unsound facility is being demolished by burning.

Keep RACM adequately wet unless written prior approval of alternate method is obtained from EPA due to safety hazard or equipment damage from wetting. Do not drop, throw, slide, or damage RACM while handling. Use leak-tight chutes/containers if >50 ft above ground. Use negative pressure and HEPA filters. Label containers or wrapped materials using warning labels as specified by OSHA.

If wetting operations are suspended due to temperatures <32^o F, record the temperature at the beginning, middle, and end of each workday.

For large components ACM is not required to be stripped if component is removed, transported, stored, disposed of, or reused without disturbing or damaging the ACM and it is encased in leak-tight wrapping and properly labeled during loading, unloading, and storage.

Mark transport vehicles with visible signs and readable legends, conforming to the requirements listed in the regulations.

Deposit RACM as soon as practical at a waste disposal site operated in accordance with 40 CFR 61.154 or an EPA approved site that converts RACM into asbestos free material in accordance with 40 CFR 61.155. Maintain and provide copies of waste shipment manifests to disposal sites. Contact transporter/disposal site if signed shipment record is not received in 35 days, and report to EPA if not received in 45 days.

ASPHALT PAVING - Only manufacture, mix, store, use, and apply liquefied emulsified asphalt.

CONTROLLED BURNING

Controlled burning is permitted in Virginia under certain conditions when it is associated with forest or agricultural practices, fire fighter training, or for storm debris cleanup. The Environmental Group's Natural Resources Department must perform controlled burning for forestry or agricultural practices. Such burning will be consistent with approved Wildland Fire Management Plans.

For fire fighter training, the designated training coordinator must notify and receive approval from the Virginia Regional Director prior to conducting the training exercise. Training schools with permanent facilities are exempt from the notification requirement. Training activities related to wildfire fighting must be coordinated through the Natural Resources Department.

Any burning operations for the disposal of disaster related debris must be approved by the Virginia Air Pollution Control Board and must be consistent with the approved Wildland Fire Management Plan. Controlled burning for the purpose of non-disaster related yard or pruning debris management is not allowed under any circumstances.

Controlled burning operations shall be conducted by trained and certified personnel only, and will at a minimum have the Base Fire Department on alert in case of emergency. Controlled burns shall be attended at all times. For clarification on requirements for any other type of controlled burning requests, contact your Environmental Compliance Storefront Natural Resources Staff.

DUST CONTROL

The following actions are required to control particulate matter (dust) emissions to the outside air:

- Use water to control dust from demolition, construction, road grading, land clearing, and material stockpiles.
- Pave/maintain roadways in a clean condition; promptly remove spilled or tracked dirt or materials from paved streets; promptly remove dried sediment resulting from soil erosion.
- Install and use hoods, fans, and filters to enclose, filter, and vent dusty material.
- Utilize adequate containment during sandblasting or other similar operations.
- Cover open equipment for transporting material likely to create dust when in motion.

CLEANING/DEGREASING SOLVENTS

Use ODS only for mission critical cleaning (oxygen system or gyroscope). Do not use halogenated solvents in any parts washer or degreaser unit. Contact air manager prior to installation of vapor or conveyorized systems, or use of solvents with volatility > 0.6 psi.

- ODS solvents: CFC-113 and Methyl Bromide (Bromomethane).
- Halogenated solvents: Methylene Chloride; Perchloroethylene; Trichloroethylene; and Chloroform
- Both ODS and Halogenated: Methyl Chloroform/1,1,1 Trichloroethane; Carbon Tetrachloride/Tetrachloromethane

Maintain units in accordance with manufacturer recommendations. Post the following requirements at each unit and follow at all times:

- Store fresh and waste solvents in closed containers that remain closed except during handling;
- Close degreaser/cleaner cover when not in use;
- Drain parts at least 15 seconds or until dripping stops;
- Ensure solvent spray is a solid, fluid stream with no excessive splashing.

Record and Report monthly amount of solvent added and/or removed from units at NWS Yorktown, Cheatham Annex, and Northwest Annex (A-6).

Maintain Records for 5 years of Material Safety Data Sheets (MSDS).

COATING, SOLVENT, AND STRIPPER USE - GENERAL

State regulations require minimization of VOC emissions, including those found in paints, solvents, and chemical strippers. Even non-hazardous and environmentally friendly products like citrus degreaser and latex paint contain VOC and are covered by air regulations. To comply with air regulations follow the practices listed below. Refer also to the *Hazardous Materials, Hazardous Waste, Minimization Reutilization, and Disposal Guideline* for additional information on appropriate waste containers and disposal methods.

- Keep all containers closed except when handling material.
- Clean paint guns/lines in a gun washer or by manual disassembly. Do not spray solvent through gun or line. Paint gun washers are available with fittings to clean paint lines. If you soak paint guns in solvent, keep container covered while gun soaks.
- Do not air dry containers unless both of the following apply: a) all remaining material possible has been transferred to appropriate waste container; AND b) there is no more than 1 inch residue remaining for paint (no visible residue allowed for solvents or strippers). This includes latex & non-regulated paint.
- To dispose of paint related items (brushes/rags/rollers) that have NOT been used with regulated hazardous paint, solvent, or thinner, remove as much liquid as possible (containerize/dispose as appropriate) and air dry under operator’s control/supervision inside building or enclosure. Discard as normal trash when dry.
- Do not air-dry paint related items that have been used with hazardous paint/solvent/thinner- dispose of as hazardous waste.

COATING OPERATIONS- AIRCRAFT (NAVSTA NORFOLK and OCEANA)

This section covers aircraft and component painting and cleaning operations at NAVSTA Norfolk and NAS Oceana. These requirements are in addition to the general painting/solvent requirements and those outlined in the process section for painting that occurs in booths.

Purchase all solvents, cleaners, coatings, and strippers through the supply system. Do not add to the Authorized Use List (AUL) without your air manager's approval. Keep all containers closed except when handling material or waste. Place solvent laden rags in closed containers after use. Minimize spills by using funnels when transferring material or waste to containers. Ensure containers are not leaking.

For hand-wipe cleaning aircraft surfaces, use only compliant cleaners from the 509 Manual with vapor pressure < 45 mmHg at 68^{o}F (20^{o}C). Exceptions are exempt cleaning operations: prior to adhesive bonding; breathing oxygen systems; electronic parts and assemblies; aircraft fluid systems; fuel cells; fuel tanks; textiles; or glass substrates. Epoxy Thinner (NSN 8010-01-200-2637 & 8010-01-212-1704) has a high vapor pressure and can only be used in exempt cleaning operations. Methyl Ethyl Ketone (MEK) should not be used.

Clean paint guns either by manual disassembly or in a spray gun cleaner. Do not spray solvent through gun to clean it. Inspect paint gun washers monthly for leaks (A-4). If leak is found, secure and empty the washer, document on inspection log, and repair within 15 days. Deploying squadrons shall perform an inspection prior to deployment and remove all solvent from the gun washer, noting the deployment date and date gun washer is filled upon return.

Limit painting to "touch-up" as defined in the 509 manual. Paint only to restore areas damaged during corrosion repair procedures. Do not paint solely for cosmetic reasons. Limit paint reservoirs to eight ounces per COMNAVAIRLANT INST 4750.D. Apply coatings using High Volume Low Pressure (HVLP) paint spray guns (do not exceed 10 psig exit pressure), sem-pen, jet pack, aerosol, or brush and roll.

Utilize compliant coatings as outlined in the 509. Primer maximum VOC 350 g/l (2.9 lb/gal). Topcoat/self priming topcoat maximum VOC 420 g/l (3.5 lb/gal). Manage coatings through paint issue lockers. Do not thin coatings. Post "no-thinning" signs at lockers and in work centers.

Minimize use of chemical strippers by using hand or mechanical sanders or abrasive-blast units.

Reporting

- Monthly paint-gun washer inspection reports (A-4)

Maintain Records for 5 years

- Coating and solvent Material Safety Data Sheets (MSDS)

COATING OPERATIONS – SHIP AND SHIP COMPONENT (NAVSTA NORFOLK)

This section covers ship and component painting at NAVSTA Norfolk including painting of barges, target buoys, and boats. These requirements are in addition to the general painting/solvent requirements and those outlined in the process section for painting that occurs in booths.

Painting by ships forces is exempt from recordkeeping if stock system paint is used and paint meets VOC limits/is not thinned.

Use paint that meets VOC limits as shown on (A-5). For non-stock system items, obtain manufacturer batch VOC certifications for each batch (lot) of coating prior to application.

For every paint application, record the coating name, manufacturer, VOC content, **batch (lot) number**, category, and amount used on the usage log (A-5). Submit the log along with all VOC batch certifications monthly. Batch (lot) numbers are generally found on the top of 1-gallon containers and on the label of 5-gallon containers. Contact your air manager or the paint manufacturer if you cannot determine the batch (lot) number of your paint.

Do not thin coatings. Thinning increases the coating VOC content beyond the regulatory limit. Manage coatings and thinners/reducers through paint issue lockers. Post signs at the lockers and in the work center stating that thinning is not allowed. Contact your air manager if you need to thin paint so that an alternative coating or maximum thinning ratio and thinning waiver can be established.

Apply coatings using High Volume Low Pressure (HVLP) paint spray guns (do not exceed 10 psig exit pressure), sem-pen, jet pack, aerosol, or brush and roll.

Minimize VOC emissions by following work practices listed on (A-5) for all paint and solvent material or waste handling. Keep containers covered unless material or waste is being added or removed. Maintain containers in good order with minimal rusting and dents and no openings or leaks. Use funnels or other devices or practices to minimize spills. Clean spills immediately and properly containerize. Do not air-dry paint or solvent containers or accessories unless all liquid has been removed and placed in a container that is kept closed except when transferring material or waste. Maintain paint and solvent systems in good order to avoid leaks.

Inspect your work area daily and certify by signature on your monthly report (A-5) that all work practices have been followed. Note any work practice discrepancies on (A-5) or separate sheet so that they can be reported in the semi-annual report as required by EPA.

Record and Report Monthly

- Monthly coating and solvent usage form (A-5)
- Thinning waivers for authorized thinning operations
- Manufacturer VOC batch certifications

COMBUSTION EQUIPMENT – excludes portable generators and light carts. Operate emergency generators no more than 500 hours/year. Do not use any generator for load shedding unless permitted for such purpose.

Meet maximum sulfur content of fuel oil burned:

- 0.2%- #2 fuel oil at P2 generators, Z312, and Little Creek plant
- 0.5%- #2 fuel oil at all other locations
- 1.5%- #4 fuel oil at Dam Neck & Lafayette River Annex (LRA) plants
- 1.0%- #4 fuel oil at Oceana plant and NWS Yorktown 457
- 1.0% - Fuel Oil Reclaimed (FOR) at Oceana and Dam Neck plants

Keep invoices for each delivery showing date, amount, location, and:

- #2 oil: ASTM D396 statement; actual sulfur at Z312, P2, Little Creek
- FOR at Oceana and Dam Neck: maximum sulfur content
- #4 oil at Oceana, Dam Neck, LRA: maximum sulfur content
- #4 oil at Yorktown B457: sample result with sulfur content, method of determination, and location of oil when sample was taken;
- Oil at P1 & SP85: oil type and sulfur per shipment; sulfur of combined sample of shipments purchased per tank each week.

Title V Monitoring (Dam Neck, Little Creek, NAVSTA, Oceana)

Perform monthly visual observation on each boiler stack (annual for generators) during normal operations. Take corrective action if any visible emissions. Record observations/corrective actions (A-9). If visible emissions remain, perform Method 9 at 15-second intervals for six minutes (A-10). If six-minute average exceeds ½ opacity limit, continue for additional 12 minutes. If any of the six-minute averages during the 18 minutes exceeds limit, continue for one hour from initiation. Report any six-minute result over the limit. Limits are:

- 20%- steam plants (except Z312 & Little Creek), Dam Neck boiler at Bldg 442, Dam Neck generators at Bldgs 355, 359, 469D/E; all peak shaving generators except NH94
- 15%- NH-94 peak shaving generators & CEP209 emergency generator
- 10%- Oceana Corrosion Control Hangar (CCH) boilers, Z312 steam plant and generator, Little Creek steam plant, W143 NMCI generators

Record and Report Monthly

- Monthly fuel burned & operating hours for steam plant boilers and peak generators (weekly for NAVSTA plants and P-1/Z-312 generators)
- Monthly fuel burned for all boilers & generators (except at NAVSTA, Oceana, and Dam Neck).
- Monthly fuel burned at Oceana Corrosion Control Hangar boilers
- Fuel receipts for: St Juliens Creek, NAVMEDCEN, Z312, and Little Creek steam plants; all boilers/generators at Yorktown/Cheatham
- Title V visible emissions monitoring (A-9, A-10)

Maintain Records for 5 years

- Fuel invoices with certifications; all fuel sample results
- Z312 annual multicyclone inspections, CEMS calibration/maintenance
- SOPs, training records, maintenance schedule and records

FUEL DISPENSING & DELIVERIES

This section applies to all gasoline, diesel, and JP-5 dispensing units, as well as deliveries made by government forces.

During gasoline storage, vapors collect in the tank above the liquid gasoline. When the tank is filled, the rising liquid will push the vapors out into the air. Air regulations are in place to minimize the escape of these vapors.

- Stage I vapor recovery- the tanker truck operator connects vapor return lines from the storage tank to the tanker truck to collect vapors generated during the fueling process. This can be done either with two hoses and connectors or with a single connector and a co-axial hose (fuel flows through the inner tube while vapors are displaced through the annular space between the inner and outer tubes).

- Stage II vapor recovery- the vapors from the vehicle filling process are returned to the storage tank using a co-axial gasoline dispensing hose and rubber "boot" to seal against the vehicle gas tank during fueling. The tanker truck operator then collects the vapors with the Stage I vapor recovery system.

All gasoline dispensing tanks with capacity greater than 250 gallons must be equipped with Stage I vapor recovery.

If Stage II vapor recovery has been installed on your pumps, then it must be maintained in order for CNRMA to receive credit for the associated VOC reductions in our annual operating fees.

All hoses, nozzles, and vapor control systems must be maintained to prevent leaks.

Title V Monitoring (Dam Neck, Little Creek, NAVSTA, Oceana)

For each delivery of gasoline received at service stations, the attendant on duty must observe and document on (A-1) that the tanker truck driver utilized Stage I vapor recovery. The attendant must refuse delivery if the truck operator does not utilize the Stage I connection to return the vapor to the tanker truck.

Record and Report Monthly

- Monthly gallons of gasoline, diesel, or JP-5 pumped at Little Creek (annual records at all other facilities)
- Monthly gallons of diesel and gasoline delivered by government forces to combustion equipment (including date, location, and amount of delivery) at Cheatham Annex, Yorktown, Little Creek, ST Juliens Creek, NAVMEDCEN, Craney Island, Yorktown Fuels, and Naval Station MARMAC CEP-209 generator. Annual gallons by building elsewhere.
- Gasoline vapor recovery documentation (A-1)

OZONE DEPLETING SUBSTANCES - HALONS

Halon is a Class I ODS. Halon fire protection systems are authorized only for mission critical applications: flight lines; ship and shore based crash, fire, and rescue vehicles; shipboard room flooding; aircraft and aircraft explosion suppression; and landing craft air cushion (LCAC).

Procurement of Halon or Halon systems must be approved by a senior acquisition official with technical certification by an Authorized Technical Representative. Halon must be obtained from the ODS Reserve. Installation of shore-based Halon fire protection systems and non-mission critical portable Halon fire extinguishers prohibited.

Testing, maintenance, service, repair, or disposal of Halon containing equipment must be performed by technicians who have been trained regarding Halon emissions reduction within 30 days of being hired. Technicians must use certified recycling and/or recovery equipment manufactured on or after 15 Nov 1993. If your equipment was manufactured prior to 15 Nov 1993, contact your air manager.

Halon containing equipment must be sent for Halon recovery to a manufacturer, fire equipment dealer, or recycler operating in accordance with National Fire Protection Association (NFPA) standards 10 and 12A. Excess Halon that cannot be used locally for mission critical activities must be sent to the ODS reserve.

Intentional releases of Halons, including those resulting from failure to maintain equipment, are prohibited except in good faith attempts to recycle or recover Halon. Testing of fire extinguishing systems is exempt if:

- Alternatives unavailable or cannot be used for technical reasons;
- release essential to demonstrate system function;
- system failure poses risk to human safety/environment;
- during research and development of Halon alternatives;
- during analytical determination of purity;
- during legitimate fire extinguishing or explosion inertion.

Record and Report

- Recovery equipment manufactured before 15 November 1993

Maintain Records

- Technician certifications
- Equipment certifications

OZONE DEPLETING SUBSTANCES – AIR CONDITION/REFRIGERATION (A/C&R)

Includes motor vehicle air conditioning (MVAC) and "MVAC like" appliances that use mechanical vapor compression to cool the driver/passenger compartment of non-road vehicles such as aircraft.

Only use Class I ODS (CFC—11,12,113,114,115,500,502) in mission critical systems. Class I ODS must be obtained from the DLA ODS Reserve and excess Class I must be returned to the reserve.

Transfer A/C&R equipment for re-use (label as containing ODS) to DRMO. For disposal, a certified technician must: remove all refrigerant and oil (and attach record of removal) to unit; place unit in scrap metal dumpster; log details on (A-2): date recovered, refrigerant type and amount recovered, equipment type, technician name and signature, and a statement that all refrigerant that had not leaked was recovered in accordance with 40 CFR 82.

Maintenance, repair, and disposal of A/C&R equipment must be performed by technicians certified through an EPA-approved program using certified recycling/recovery equipment manufactured on/after 11/15/93. Keep copies of technician certifications at workplace and operate recovery/recycling units in accordance with manufacturer instructions.

ODS must not be intentionally released into the environment. Records must be kept of accidental releases.

Requirements for A/C&R units with normal charge over 50 lbs:

- Units cannot leak more than 15% per year.
- Leaks must be repaired within 30 days of discovery. Contact your air manager if leak cannot be repaired within 30 days so that EPA notifications can be made and a one-year plan constructed.
- Perform initial leak repair verification test prior to replacement of full charge, before unit returns to normal operating conditions.
- Perform follow-up leak repair verification test within 30 days of unit returning to normal operating condition if it was evacuated, or as soon as it returns to normal if it was not evacuated.
- Keep records on all service/repairs: building (and location if multiple units); date/description of service/repair; type/amount refrigerant added/recovered; normal charge, and technician name
- For leak repairs also record: date leak discovered; amount leaked; cause; description; date/results of leak repair verification tests;

Record and Report

- Equipment over 50 pounds whose leaks are not repaired in 30 days

Maintain Records for 5 years

- Technician & recovery/recycling equipment certifications
- Refrigerant purchases (date, amount, type)
- Accidental releases
- Facility name/address to which excess refrigerant is sent
- Refrigerant removal prior to small appliance disposal
- Service to equipment normally containing 50 pounds or more

PROCESS OPERATIONS

This section covers process operations that exhaust to the outside of a building, including blast booths, downdraft tables, firing ranges, and paint booths. If the process does not vent to the outside of the building, as is common with abrasive blast gloveboxes, it is not covered.

Maintain equipment in accordance with manufacturer recommendations. Secure operations and conduct repairs if waste material or over-spray is observed at exhaust. Filters/frames must not have holes, gaps, or clogs. Dust collection systems must discharge to containers without breaks/holes in ducts or spills. Inspect all filters and dust collection systems prior to operation and secure units found to be deficient until repairs can be made.

Only perform outdoor process operations with air manager's approval. The air manager will approve outdoor operations if determined to be technically infeasible to perform in a booth/enclosed area. Minimize dust/debris/over-spray by using shrouding, stopping work in windy conditions, and following storm-water best management practices.

Title V Monitoring (Dam Neck, Little Creek, NAVSTA, Oceana)

Covers abrasive blast booths (not gloveboxes), indoor firing ranges, paint booths, and the MARMAC fiberglass operation

Differential pressure devices (manometers) are used to ensure filters are changed before problems arise. Mark the recommended differential pressure reading on your device (it is based on the filter manufacturer recommendations). Permits require operators log the differential pressure device (manometer) readings (A-8) at least monthly (recommend logging once per shift). Exception is AIMD SP-356 blast booth at NAVSTA, which is required by permit to be logged once per shift. If pressure is outside of recommended reading (either too low or too high), log actions taken to bring pressure to recommend. Normally that means changing the filter.

Log all filter changes on (A-8). Inspect filter condition prior to operation and log result in "operating condition" column on (A-8).

Perform a monthly visual emissions observation on each stack during normal operations. If observation indicates any visible emissions, take corrective actions. If corrective action fails to eliminate emissions, secure operation and contact air manager for guidance. Record results and any corrective actions (A-9).

Record and Report Monthly

- Material usage: pounds blast; rounds fired; gallons coating
- Title V visual observations logs (A-9)

Maintain Records for 5 years

- SOPs, operator training, maintenance schedule and records
- Differential pressure logs once per shift (A-8)

WOODWORKING OPERATIONS - Covers woodworking operations that exhaust to the outside of a building.

Maintain dust collection systems, cyclones, and filters in accordance with manufacturer recommendations. Secure operations and conduct repairs if waste material is observed at exhaust. Dust collection systems must discharge to enclosed containers without breaks/holes in ductwork or spills. Inspect dust collection systems prior to operation; if deficiencies are found, secure until repairs are made.

Only perform outdoor woodworking operations with air manager's approval. The air manager will approve outdoor operations if determined to be technically infeasible to perform in a booth/enclosed area. Minimize dust/debris by using shrouding, stopping work in windy conditions, and following storm-water best management practices.

Title V Monitoring (Dam Neck, Little Creek, NAVSTA, Oceana)
Performed by CNRMA environmental personnel.

Record and Report Monthly / Maintain Records for 5 years: None

WOOD PRODUCT NESHAP– NAVSTA NORFOLK AND NAS OCEANA
This section covers construction of new wood products such as furniture or associated components. This includes shops with no outside vent as well as work that does not occur in a wood shop. **This section has been expanded in scope and should be reviewed carefully.**

Exemptions:

- Facility maintenance (examples: door trim, wall wainscoting)
- Repair or refinishing of existing wood furniture or products
- Work that does not include any finish material or adhesive

Furniture is anything made of wood or wood engineered product. The regulation incorporates by reference several items not normally considered furniture (i.e. industrial workbenches, lockers, built-in bookcases/shelves, kitchen cabinets, display cases). **This section has therefore been expanded to cover all types of wood products that are manufactured on base, even picture frames and shadow boxes.**

Finish material includes basecoat, washcoat, topcoat, enamel, sealer, varnish, and paint.

Adhesive is any material applied to adhere surfaces. Material with adhesive incorporated (sticky back Formica or veneer) is exempt.

If you have any questions regarding your operations applicability, contact your air manager.

Post (A-11) in your shop as a reminder of the requirements.

Record/Report Monthly: finish material and adhesive used (A-7).

GASOLINE STAGE I VAPOR RECOVERY FUEL TRANSFER DOCUMENTATION LOG

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Denise Sturdifen

FACILITY: _____ BLDG: _____ POC: _____ PHONE: _____

Observe the gasoline storage tank fueling process. Did the truck operator hook vapor return lines from the gasoline storage tank to the truck during the fuel transfer process?

Date and Time Gasoline Received	Supplier (Tanker Owner)	Yes	No	Comments (If No)	Operator or Witness Signature and Company or Command

RECORD OF REFRIGERANT REMOVAL, ADDITION, & APPLIANCE DISPOSAL – RETAIN ON SITE 5 YEARS

Technician name (Print): _____ Normal Charge of Unit (add circuits if more than one)_____ lbs

Facility: _____ Bldg #: _____ Description/Location in building (if multiple units) _____

Refrigerant type: _____ Repair W/O #: _____ Date_____ Asset #_____

REFRIGERANT USAGE (ALL EQUIPMENT)

POUNDS REMOVED	POUNDS ADDED	REPAIR/SERVICE DESCRIPTION

SERVICE TO EQUIPMENT NORMALLY CONTAINING MORE THAN 50 POUNDS REFRIGERANT

Leak repair location, description, and cause:	**Amount Leaked**	**Date Leak Discovered**	**Date Leak Repaired**	Initial Verification Test Date & Result *	Follow-up Verification Test Date & Result *

Note: ***For units normally containing more than 50 pounds charge, if you have a continuous leak that cannot be repaired within 30 days** of discovery, contact CNRMA environmental immediately. Depending upon the leak rate, this could require notification to the EPA. Leak verification tests must be performed and documented as soon as the appliance returns to normal conditions.

EQUIPMENT DISPOSAL

Refrigerant Type	Model #	Serial #	Equipment Type (Refrigerator, water cooler, etc.)	Amount of Refrigerant Removed

☐ I certify that all refrigerant and oil that has not leaked from this appliance has been removed in accordance with 40 CFR 82. A label has been affixed to the appliance stating the same.

TECHNICIAN SIGNATURE_____

GENERAL COATING AND THINNER REPORT

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Denise Sturdifen

Facility:_____ Activity:_____Bldg:_____ POC/PH: _____

	COATING				SOLVENT			
DATE	NAME OR NSN	MANUFACTURER OR CAGE	AMT (GAL)	APPL. CODE	NAME OR NSN	MANUFACTURER OR CAGE	PURPOSE	AMT (GAL)

Application Code
A: Aerosol
BR: Brush & Roller
S: Spray Booth
O: Other (describe)

Notes:
(1) Do not include coating associated with facility maintenance (doors, trim, etc.)
(2) Do not use for ship repair coating at NAVSTA (that goes on A-5)
(3) No thinning allowed for painting of metal parts or product production items
(4) No report required for aircraft coating at NAVSTA or Oceana
(5) Do not use for wood products at NAVSTA or Oceana (that goes on A-7)

AEROSPACE PAINT GUN WASHER MONTHLY INSPECTION LOG - NAVSTA NORFOLK AND NAS OCEANA

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Denise Sturdifen.

Facility: _____ Squadron/activity:_____ Bldg: _____ POC/PH: _____

Solvent NSN #:_____ Cage #: _____ Unit Manuf: _____Model:_____ S/N:_____

- Inspect washer monthly for leaks. Secure leaking units immediately. Keep logs for at least five years.
- Repair all leaks within 15 days of discovery and document on log. Include dates: leak was found, unit was secured, and leak was repaired.
- Empty washer prior to deployment and document on log.

Inspection date & time	Inspection results	Inspector	Date leak secured	Date leak repaired	Comments

DAILY MARINE COATING USAGE LOG - NAVAL STATION NORFOLK

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Leal Boyd

COMMAND/SHOP: POC: PH:

DATE	COATING NAME OR NSN	COATING MANUFACTURER	COATING BATCH (LOT) #	Batch VOC CONTENT	COATING CATEGORY	AMT USED

VOC Limits for Ship Coatings (1st number is grams/liter and 2nd number is pounds/gal)

G1: General use	340/2.84	S5: High gloss	420/3.50	S10: Navigat. Aid	550/4.59	S15: Thermoplastic repair	550/4.59	S20: Tack coat	610/5.09
S1: Air flask	340/2.84	S6: High temp	500/4.17	S11: Non-skid	340/2.84	S16: Rubber camo	340/2.84	S21: Undersea weapons	340/2.84
S2: Antenna	530/4.42	S7: Inorganic zinc	340/2.84	S12: Nuclear	420/3.50	S17: Sealant, thermal spray	610/5.09	S22: Weld-thru primer	650/5.42
S3: Antifoulant	400/3.34	S8: Military exter.	340/2.84	S13: Organic zinc	360/3.00	S18: Special marking	490/4.09		
S4: Heat resistant	420/3.50	S9: Mist coat	610/5.09	S14: Wash primer	780/6.51	S19: Specialty interior	340/2.84		

****I certify that:** containers of paint/solvent are maintained in good order with minimal rusting and dents, no openings or leaks; paint/solvent containing systems (spray systems) are maintained in good order to minimize chance of leaks; containers of paint/solvent material/waste are kept closed unless material/waste is being added/removed from the containers; funnels or other such devices/practices are used to minimize chance of paint/solvent material/waste spillage; spills are cleaned up immediately and properly containerized; containers are not allowed to air dry unless empty; and NO THINNING occurs unless documented on thinning waiver.

Comments/discrepancies/corrective actions noted below: _____(**signature**)

SOLVENT METAL CLEANING WITH PARTS WASHERS

Facility: _____ Activity/Command:_____ Bldg: _____ POC/PH:_____

DATE	SOLVENT NAME OR NSN/CAGE	GALLONS ADDED	GALLONS REMOVED	USED (ADDED – REMOVED)

WOOD PRODUCT AND COMPONENT MANUFACTURING - NAVAL STATION NORFOLK AND NAS OCEANA

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Denise Sturdifen

Facility: _____ Activity/command:_____ Bldg: _____ POC/PH:_____

Date	Item made *List all wood items made that have finish or adhesive added* *	Finish material Manufacturer and product name	Finish material Amount used (include units)	Adhesive/glue Manufacturer and product name	Adhesive/glue Amount used (include units)

*Repair/refinishing and facility maintenance exempt. Report only if finish or adhesive is used in process. See page 13 or A-11 of guide for further details.

CONTROL DEVICE DIFFERENTIAL PRESSURE LOG - RETAIN ON SITE FOR 5 YEARS

FACILITY: _____ BLDG :_____ EQUIPMENT:_____

COMMAND/SHOP:_____ **POC: _____PH:_____**

DATE	TIME	OBSERVED BY (PRINT NAME)	OPERATING CONDITION (FILTER)*	DIFFERENTIAL PRESSURE		LOG FILTER CHANGE OUTS HERE If pressure is outside recommended range, describe corrective action and repeat
				Manufacturer Recommended	Actual	

*** Inspect filter systems and correct deficiencies prior to operation. There should be no gaps, tears, or holes in filters.**

VISUAL EMISSIONS LOG FOR TITLE V FACILITIES

Submit by the 5th of every month for the preceding month's work. Fax to 444-3000 Attn: Denise Sturdifen

FACILITY: _____ BLDG :_____ EQUIPMENT:_____

COMMAND/SHOP:_____ **POC: _____PH:_____**

DATE	TIME	OBSERVED BY (PRINT NAME)	OPERATING CONDITION (LOAD)	ARE EMISSIONS VISIBLE FROM STACK?	IF VISIBLE EMISSIONS, DESCRIBE CORRECTIVE ACTION TAKEN AND REPEAT OBSERVATION ON NEXT LINE

Method 9 Visible Emissions Evaluation

Pg of Observation Date

Company Name US NAVY

Start Time End Time

Facility (Base)

Building	Unit #
City	State
Process	Operating Mode
Control Equip	Operating Mode

Describe Emission Point

Height of emission point Start End	Height relative to observer Start End
Distance to emission point Start End	Direction to emission point Start End

Describe Emissions

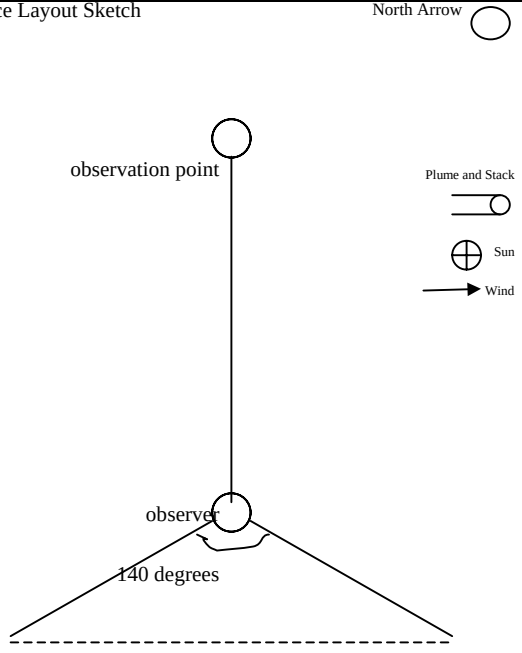
Start End

Emission Color

Start End

Describe Plume Background Start End	Ambient Temperature (F) Start End
Background Color Start End	Sky Conditions Start End
Wind Speed and Direction Start End	Relative Humidity (%) Start End

Source Layout Sketch



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1st 6 min avg	Opacity Max
2nd 6 min avg	Opacity Min
3rd 6 min avg	
1 hour avg	

Name (Print)

Signature Date

Organization Work Phone

Certified by Date

NOTICE

To all personnel using woodworking equipment
Naval Station Norfolk or NAS Oceana

If you use any adhesive or finish material in the construction of new wood **products** or components, you must report material used using form (A-7) of the Clean Air Act Compliance Guide.

Any new wood item built on-base falls under the regulation

Exceptions

- Facility maintenance (examples: door trim, wall wainscoting)
- Repair or refinishing of existing wood products or furniture
- Work that does not include finish material or adhesive

Wood items include wood engineered product such as particleboard & plywood.

Wood products and components include but are not limited to furniture, industrial workbenches, lockers, built-in bookcases/shelves, kitchen cabinets, display cases, picture frames, and shadow boxes.

Finish material includes basecoat, washcoat, topcoat, enamel, sealer, varnish, paint.

Adhesive is any material applied to adhere surfaces. Material with adhesive incorporated (such as sticky back formica or veneer) is exempt.

If you have any questions regarding your operations applicability, contact your CNRMA environmental air manager.

Record/Report Monthly: finish material and adhesive used (A-7).